

# PATENT ABSTRACTS OF JAPAN

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## (54) AIR CONDITIONER

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To realize the operation of high efficiency over a wide operating range by solving the failure in matching between a compressor and an expander in an air conditioner utilizing the air cycle.

**SOLUTION:** An air cycle part 1 comprises a first compressor 3 and a second compressor 4 to compress the air in two stages. The expander 5 is connected coaxially with the second compressor 4. The first compressor 3 and the expander 5 are independently controlled.

